

WHAT IS CLAIMED IS:

1. A subsea drilling/completion system, comprising:
 - a high-pressure riser extending between a platform and a subsea wellhead;
 - a landing string extending inside the length of said riser;
 - 5 a surface blowout preventer disposed on said riser above the sea surface;
 - a tubing hanger running tool adapted to be run through said riser;
 - wherein said tubing hanger running tool is controlled by means of hydraulic pressure
communicated through said landing string.
2. The subsea drilling/completion system of claim 1, further comprising:
 - 10 a subsea blowout preventer disposed around said landing string below said sea
surface substantially adjacent to said wellhead.
3. A subsea drilling/completion system, comprising:
 - a high-pressure riser extending between a platform and a subsea wellhead;
 - a landing string extending inside the length of said riser;
 - 15 a surface blowout preventer disposed on said riser above the sea surface;
 - a tubing hanger running tool adapted to be run through said riser;
 - wherein said tubing hanger running tool is controlled by means of hydraulic pressure
communicated inside said riser and outside said landing string.
4. The subsea drilling/completion system of claim 3, further comprising:
 - 20 a subsea blowout preventer disposed around said landing string below said sea
surface substantially adjacent to said wellhead.
5. A subsea drilling/completion system, comprising:
 - a high-pressure riser extending between a platform and a subsea wellhead;
 - a landing string extending inside the length of said riser;
 - 25 a surface blowout preventer disposed on said riser above the sea surface;
 - a tubing hanger running tool adapted to be run through said riser;
 - wherein said tubing hanger running tool is controlled by means of hydraulic pressure
communicated through an umbilical line extending inside said riser and outside said landing
string.
- 30 6. The subsea drilling/completion system of claim 5, further comprising:
 - a subsea blowout preventer disposed around said landing string below said sea
surface substantially adjacent to said wellhead.

7. The subsea drilling/completion system of claim 6, further comprising:
a protective structure protecting said umbilical line when said subsea blowout
preventer is closed around said landing string.
8. The subsea drilling/completion system of claim 7, wherein said protective structure
5 comprises a ball drop activation sub.
9. The subsea drilling/completion system of claim 9, wherein said protective structure
comprises a rupture disk actuation sub.
10. The subsea drilling/completion system of claim 9, wherein said protective structure
comprises a substantially annular structure surrounding said landing string and having a
10 conduit extending along its length adapted to receive said umbilical therein.
11. The subsea drilling/completion system of claim 12, further comprising a substantially
annular sealing structure sealing said umbilical in said conduit.
12. The subsea drilling/completion system of claim 9, wherein said protective structure
serves as a manifold for directing individual control lines in said umbilical to said tubing
15 hanger running tool.
13. A subsea drilling/completion system, comprising:
a high-pressure riser extending between a platform and a subsea wellhead;
a landing string extending inside the length of said riser;
a surface blowout preventer disposed on said riser above the sea surface;
20 a tubing hanger running tool adapted to be run through said riser;
wherein said tubing hanger running tool is controlled by means of hydraulic pressure
communicated through an umbilical line extending alongside and outside said riser.
14. The subsea drilling/completion system of claim 10, further comprising:
a subsea blowout preventer disposed around said landing string below said sea
25 surface substantially adjacent to said wellhead.
15. A subsea drilling/completion system, comprising:
a high-pressure riser extending between a platform and a subsea wellhead;
a landing string extending inside the length of said riser;
a surface blowout preventer disposed on said riser above the sea surface;
30 a tubing hanger running tool adapted to be run through said riser;
wherein said tubing hanger running tool is controlled by means of hydraulic pressure
communicated through an umbilical line extending inside said landing string.

16. The subsea drilling/completion system of claim 10, further comprising:
a subsea blowout preventer disposed around said landing string below said sea surface substantially adjacent to said wellhead.
17. A method of subsea drilling/completion, comprising:
- 5 (a) providing a high-pressure riser extending between a platform and a subsea wellhead;
- (b) providing a landing string extending inside the length of said riser;
- (c) providing a surface blowout preventer disposed on said riser above the sea surface;
- 10 (d) providing a tubing hanger running tool adapted to be run through said riser;
- (e) controlling said tubing hanger running tool by means of hydraulic pressure communicated through said landing string.
18. The method of claim 17, further comprising:
- (f) providing a subsea blowout preventer around said landing string below said sea surface substantially adjacent to said wellhead.
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19. A method of subsea drilling/completion, comprising:
- (a) providing a high-pressure riser extending between a platform and a subsea wellhead;
- (b) providing a landing string extending inside the length of said riser;
- 20 (c) providing a surface blowout preventer disposed on said riser above the sea surface;
- (d) providing a tubing hanger running tool adapted to be run through said riser;
- (e) controlling said tubing hanger running tool by means of hydraulic pressure communicated inside said riser and outside said landing string.
- 25 20. The method of claim 19, further comprising:
- (f) providing a subsea blowout preventer disposed around said landing string below said sea surface substantially adjacent to said wellhead.
23. A method of subsea drilling/completion, comprising:
- (a) providing a high-pressure riser extending between a platform and a subsea wellhead;
- 30 (b) providing a landing string extending inside the length of said riser;
- (c) providing a surface blowout preventer disposed on said riser above the sea surface;

- (d) providing a tubing hanger running tool adapted to be run through said riser;
 - (e) controlling said tubing hanger running tool by means of hydraulic pressure communicated through an umbilical line inside said landing string.
24. The method of claim 23, further comprising:
- 5 (f) providing a subsea blowout preventer disposed around said landing string below said sea surface substantially adjacent to said wellhead.
25. The method of claim 23, further comprising:
- (f) providing a protective structure protecting said umbilical line when said subsea blowout preventer is closed around said landing string.
- 10 26. The subsea drilling/completion system of claim 25, wherein said protective structure comprises a ball drop activation sub.
27. The subsea drilling/completion system of claim 25, wherein said protective structure comprises a rupture disk actuation sub.
28. The subsea drilling/completion system of claim 25, wherein said protective structure
- 15 comprises a substantially annular structure surrounding said landing string and having a conduit extending along its length adapted to receive said umbilical therein.
29. The subsea drilling/completion system of claim 28, further comprising a substantially annular sealing structure sealing said umbilical in said conduit.
30. The subsea drilling/completion system of claim 25, wherein said protective structure
- 20 serves as a manifold for directing individual control lines in said umbilical to said tubing hanger running tool.
31. A method of subsea drilling/completion, comprising:
- (a) providing a high-pressure riser extending between a platform and a subsea wellhead;
- 25 (b) providing a landing string extending inside the length of said riser;
- (c) providing a surface blowout preventer disposed on said riser above the sea surface;
- (d) providing a tubing hanger running tool adapted to be run through said riser;
- 30 (e) controlling said tubing hanger running tool by means of hydraulic pressure communicated through an umbilical extending alongside and outside said riser.
32. The subsea drilling/completion system of claim 10, further comprising:

a subsea blowout preventer disposed around said landing string below said sea surface substantially adjacent to said wellhead.

33. A method of subsea drilling/completion, comprising:

- 5 (a) providing a high-pressure riser extending between a platform and a subsea wellhead;
- (b) providing a landing string extending inside the length of said riser;
- (c) providing a surface blowout preventer disposed on said riser above the sea surface;
- (d) providing a tubing hanger running tool adapted to be run through said riser;
- 10 (e) controlling said tubing hanger running tool by means of hydraulic pressure communicated through an umbilical line extending inside said landing string.

34. The method of claim 33, further comprising:

- (f) providing a subsea blowout preventer disposed around said landing string below said sea surface substantially adjacent to said wellhead.